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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,841	03/09/2001	Steven Francis Colborne	LEICA/9	8013
2292	7590	05/17/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CORRIELUS, JEAN B	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/802,841	Applicant(s) COLBORNE ET AL.	
	Examiner Jean B Corrielus	Art Unit 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-21 and 23-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-21 and 23-26 are objected to because of the following informalities:

Claim 2, line 1, "defined" should be replaced by "claimed". The same comment applies to claims 3-5, 7-8, 10-12, 15-18, 20, 21, 23, 24-26, respectively. Claim 3, line 3, "profile" should be inserted after signal. The same comment applies to claims 4, line 3. Claim 6, line 1, "The method" should be "A method". "cannot be" should be replaced by "are not". Last two lines, what does it mean by **"to an accuracy level limited only by the sub-sample clock signals"**? Does it mean "based on the sub-sample clock signals"? If so the claim should be amended to replace **"to an accuracy level limited only by"** by **"based on"**. Claim 8, shouldn't the "step of using" be inserted between "the step of applying" and "the step of resetting"? claim 9, line 1, "The method" should be "A method"; lines 15, 16 and 17 "GPS" should be deleted in all occurrences; claim 10, line 4, "GPS" should be deleted; line 8, shouldn't "whole" be deleted? Last line, "what does it mean by "full counter value"? claim 11, line 4, "value" should be "values"; line 6, "values" should be "value" so as to be consistent with antecedent in claim 10, line 9. claim 12, line 3, "the desired window profile" should be changed to "the desired profile of said signal window" so as to be consistent with antecedent in claim 11. the same comment applies to claim 13. claim 14, line 2, "an" should be inserted before apparatus; line 10 "signal" should be "signals" so as to be consistent with antecedent in line 8; line 14, and last line, "code" should be deleted in both occurrences. Claim 15,

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line 6, should be amended so as to be consistent with recitation in claim 14, line 13. claim 15, last line, "desired signal profile" signal of said desired profile" so as to be consistent with recitation in claim 14, lines 2-3. claim 19, line 5, "sample" should be inserted before clock; line 8, "cannot be" should be replaced by "are not "; line 10, "for generating sub-sample clock signals" should be inserted after generator so as to provide antecedent basis for subsequent recitation in line 11; Last two lines, what does it mean by "**to an accuracy level limited only by** the sub-sample clock signals"? Does it mean "based on the sub-sample clock signals "? If so the claim should be amended to replace "**to an accuracy level limited only by**" by "**based on**". Claim 21, lines 4-8, "unit" should be "a unit", respectively. Claim 24, "unit" should be "a unit". Note that any claim whose base claim is objected is likewise objected. Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment of claim 9 are not shown, more specifically, "generating in the receiver a local clock signal used to provide signal sampling pulses separated by sampling intervals **and to generate other timing signals**; generating in the receiver a local periodic GPS code sequence similar to the one received, **at a code rate determined in part by the local clock signal and nominally the same as the received code rate**; determining in the receiver **a frequency difference between the received GPS code rate and the locally generated GPS code rate**; applying the frequency difference to the locally

generated GPS code rate to provide an adjusted locally generated GPS code rate”

as recited in claims 9, and the corresponding limitations recited in claims 14 and 22; the step dividing the frequency difference by a selected value, using a counter to provide an output signal whenever the counter overflows, to indicate that the frequency difference has resulted in a cumulative phase error equivalent to a whole code rate period; and the step of deriving a code phase value includes multiplying the code rate period by the ratio of the current counter contents to a full counter value, as recited in claim 10, must be shown or the feature(s) canceled from the claim(s). In addition, fig. 6, element 34 should include a second output and the following text “To carrier phase integration fig. 7” in addition, element “40” should be replaced by only another signal input to element 54 with the following text “from code tracking loop fig. 7”. In figure 7, on line 36, “frequency from phase tracking loop” should be “from phase tracking loop” element 40 should include a second output line that reads “To code phase adjust fig. 6”. Fig. 8, element 34 should include a second output and the following text “To carrier phase integration fig. 9” in addition, element “40” should be replaced by only another signal input to element 54 with the following text “from code tracking loop fig. 9”. Fig. 9, on line 36, “frequency from phase tracking loop fig. 6” should be “from phase tracking loop Fig. 8” and element 40 should include a second output line that reads “To code phase adjust fig. 8” No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

3. Claims 22 are allowed.
4. claims 1-21 and 23-26 would be allowable if amended to overcome the objection sets forth above.
5. This application is in condition for allowance except for the formal matters noted above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.


A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-3086. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jean B Corrielus
Primary Examiner
Art Unit 2637

5-14-05